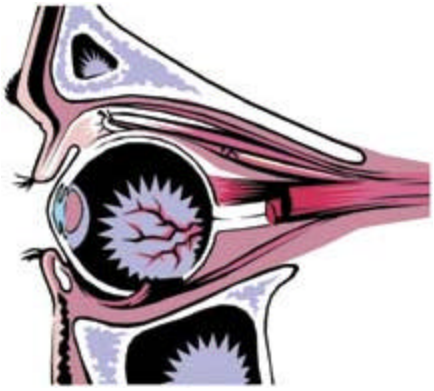
Aviation Medical Information - Part 2



This is the second in a series of articles about aviation medicine. The first article discus the precautions a pilot should take after using Viagra. This article discusses the ramifications of laser eye surgery.

It is estimated that half the American population requires corrective lenses to enhance t vision. As evidenced by the deluge of advertising for laser-corrected vision, such procedures are becoming more and more popular. What is the FAA's response to laser surgery?

The good news is that an airman who has successful laser surgery can obtain or retain medical certificate without a waiver. However, the procedure is not without risk. A pilot r be aware of potential adverse outcomes.

The potential adverse effects of laser surgery include scarring of the cornea, night-glare sensitivity to bright light, and inability to obtain the FAA required visual acuity. For both first-class and second-class medical certificate, the pilot must have distant visual acuity 20/20 with or without corrective lenses, and he must have near vision of at least 20/40. a third-class medical the pilot must have at least 20/40 vision, distant or near, with or without correction.

There have been cases in which a pilot with poor eyesight was able to correct his visior 20/20 before laser surgery by using glasses or contacts, but was unable to correct his vision to 20/20 after laser surgery. This, of course, would jeopardize his ability to obtain first- or second-class medical certificate. (A first-class medical is required for airline pilo second-class, for other commercial pilots; and third-class, for private pilots.)

The surgical complications which can result in the inability to obtain 20/20 vision include detached corneal flap, epithelial ingrowth in the corneal flap, perforation or hemorrhage the eye, and technical problems with the surgical instruments or the surgeon's skill.

FAA-accepted surgical procedures for vision correction include radial keratotomy, epikeratophakia, PRK, and LASIK. Of these four methods, LASIK (Laser Assisted in Sit Keratomileusis) is the most popular. Using a precision instrument, the ophthalmologist creates a thin flap from the front of the cornea. The corneal flap is folded aside and a la is used to reshape the portion of the cornea underlying the flap. The corneal flap is ther returned to its original position.

A minority of patients choose PRK (Photorefractive Keratectomy) over LASIK. PRK is a simpler procedure. The ophthalmologist utilizes a laser beam that vaporizes the cornea tissue and reduces the cornea's curvature, correcting for myopia (nearsightedness.) Although less complicated, PRK is more likely to result in corneal scarring. However, LA has a greater surgical risk than PRK, because the inner corneal tissue is exposed when corneal flap is folded back. It is generally considered that an ophthalmologist is required have more skill and training to perform LASIK than PRK.

What should a pilot do if he is considering laser eye surgery?

One option is to ignore the FAA medical implications and just have the procedure done. The pilot must voluntarily ground himself until his eyes have stabilized. This can require month, or as long as six months.

After the eyes have stabilized, the ophthalmologist will perform a follow-up examination will then submit a written report to the FAA Aeromedical Certification Division in Oklaho City. The report should contain a statement of the type of procedure performed, a detail

of any complications, an evaluation of the pilot's new visual acuity, and a statement tha vision has stabilized. With his statement the ophthalmologist should also submit FAA Fo 8500-7, "Report of Eye Evaluation.

The pilot may obtain Form 8500-7 from the FAA or from his AME. The FAA Aeromedica Certification Division address is 6500 S. MacArthur, Oklahoma City, Oklahoma 73169. T telephone number is 405-954-4821.

There is some ambiguity as to whether the pilot can begin flying again without notificatio of approval from Oklahoma City. Dr. Warren Silberman manages the Civil Aeromedical Institute's Aeromedical Certification Division. According to his article "RK and Laser Visi Acuity Procedures," published in the Fall 1998 issue of the *Federal Air Surgeon's Medic Bulletin,* the pilot may resume flying unless notified otherwise by the FAA.

A pilot may inadvertently begin flying without knowing that his vision does not meet the FAA's standards. For example, after the LASIK surgery his distant vision may be 20/20. ophthalmologist may declare that the pilot's near vision is 20/40, which meets the FAA's standard for near vision. "Near vision" is defined as vision at 16 inches.

In order for a pilot, after the age of 50, to qualify for a first-class medical certificate the F requires that a pilot's "intermediate vision" also be 20/40 or better. "Intermediate vision" determined by a visual acuity test at 32 inches. If a pilot begins flying with intermediate vision less than 20/40, he would be violating the parameters of his first-class physical, a thus, be flying illegally. Doing so could result in FAA disciplinary action and even invalid his aviation insurance if he has an accident.

A person who is nearsighted usually will not require reading glasses as he ages. Howev if a person undergoes laser surgery and obtains 20/20 distant vision, he will need readi glasses or bifocals as he ages. Some nearsighted patients have opted for the "best of b worlds" by having laser surgery on only one eye. After surgery, one eye will see normal a distance and the other will be able to see at close range. Vision of this type is called "monocular vision." A famous person with monocular vision is talk-show advisor Dr. Lau Schlessinger. She once remarked on her show that she had difficulty threading a needl since only one eye focused at arm's length.

May a pilot fly with monocular vision? The answer is "no," unless the FAA grants a waiv In fact, question 17a on FAA Form 8500-8 ("Application for Airman Medical Certificate") specifically asks, "Do you ever use near vision contact lenses while flying?"

Having laser surgery, which results in monocular vision, is another example of a way tha pilot may unknowingly get into trouble if he begins flying after surgery without voluntarily consulting his AME.

A pilot is not required to consult his AME prior to undergoing LASIK surgery. Nor must h see his AME immediately after surgery. It's possible that the first time the AME become aware of the LASIK surgery is when the pilot undergoes his next regularly scheduled FA physical exam. At that time, the AME may discover that the pilot had been flying for sev months with a disqualifying medical condition. That's when the pilot faces trouble.

A wiser approach to contemplated eye surgery would be to notify the AME in advance a consult with him. Also, if a pilot wants to be absolutely certain that his vision meets all F requirements after surgery, he can voluntarily submit to a new FAA physical exam even though his present medical certificate has not expired. After the pilot passes his new physical exam, he can be confident that he is flying legally.

Another alternative is to engage the services of Pilot Medical Solution, Inc., which specializes in offering medical information and assistance for pilots. A pilot may contact

Pilot Medical Solutions for advice on eye surgery before undertaking the procedure. In f Pilot Medical Solution specializes in Proactive Aeromedical Management, which offers p certification screening for any medical procedure. There is no charge for this initial consultation.

Pilot Medical Solutions will work with the pilot's ophthalmologist to ensure that he is awa of the FAA's reporting requirements and format. If the pilot has not selected an ophthalmologist, Pilot Medical Solutions has a database of recommended ophthalmolog who are familiar with the FAA's protocol. Pilot Medical Solutions will include the pilot's A in the communication process.

After surgery, the ophthalmologist can submit his follow-up report and Form 8500-7 to P Medical Solutions instead of the FAA Aeromedical Certification Division. Pilot Medical Solutions will review the paperwork for substance and format, and request modifications clarifications from the ophthalmologist, if necessary. When the paperwork is satisfactory Pilot Medical Solutions will hand-carry the documents to the FAA Aeromedical Certificat Division, which is located nearby. By utilizing the services of Pilot Medical Solutions, a p may be assured that everyone observes the FAA protocol and that he is legal to fly as s as possible.

In the discussion earlier about monocular vision it was noted that a pilot may fly with monocular vision, if he/she obtains a waiver from the FAA. At the present time there are 185 pilots that hold a monocular vision waiver for a first class medical, 348 for second class, and 1,975 for third class. These waivers are specifically for pilots who are flying w acceptable vision in only one eye, such as Wiley Post, who was the first to do so.

Obtaining a medical waiver is often difficult and usually requires special expertise. Waiv may be obtained either by documented Operational Experience (OE) or a Medical Fligh Test (MFT.) Pilot Medical Solutions has assisted many pilots with these waivers.

The address for Pilot Medical Solutions, Inc. is Hangar 14, Wiley Post Airport, 5901 Phil J. Rhoades, Suite 227, Bethany, Oklahoma, 73008. The telephone numbers are 800-69 4457 or 405-787-0303. The web site is http://www.leftseat.com/. FAA Form 8500-7 and other medical forms may be downloaded from the Pilot Medical Solutions web site.

Ultralight, glider and balloon pilots are not required to have a medical certificate, and according to the FAA, neither will a pilot who flies in accordance with the proposed Spo pilot certificate. However, these pilots are cautioned that safety of flight requires that the exercise care after laser surgery. Even though these pilots do not need an examination an AME, they should consult their ophthalmologist before flying.

The FAA requires that pilots who have a medical certificate must voluntarily ground themselves when they are aware of a medical condition that would preclude safe flight. other words, a pilot cannot exercise the privileges of his medical certificate when he kno that he is suffering from a temporary disability.

Glider, balloon and Sport pilots should also voluntarily ground themselves for an advers medical condition. Though not required by FAA regulations, even ultralight pilots should aware of the same adverse medical conditions that would ground medically certificated pilots. Good health is a prerequisite for safe flight, whether a pilot is legally required to h a medical certificate or not.

About the authors:

Dr. Erwin Samuelson has been a Senior Aviation Medical Examiner for 25 years, and is Diplomat American Board of Family Practice. He authors a pamphlet "Aviation Medicine Survival Guide," which can be seen at http://www.leftseat.com/. Dr. Samuelson contribu

to Pilot Medical Solutions, which specializes in assisting pilots in regaining their medica certificates after refusal by the FAA. His e-mail address is DrErwin@aol.com.

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Bibliography: RK and Laser Visual Acuity Procedures, by Dr. Warren Silberman, *The Federal Air Surgeon's Medical Bulletin* (1998)

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